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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,168	04/22/2004	John Scott Buchanan	P2004J011	8162

7590

08/23/2005

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EXAMINER

BUSHEY, CHARLES S

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/830,168

Applicant(s)

BUCHANAN, JOHN SCOTT

Examiner

Scott Bushey

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10, 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 11-13 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-22-04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-18, and Species E, as depicted by Figure 6 of the application, in the reply filed on July 27, 2005 is acknowledged. The traversal is on the grounds that the "features of independent claim 1 are also disclosed in independent claim 18", and that the Examiner could examine all of the inventions and all of the species at the same time without serious burden. This is not found persuasive because claim 18 is not an independent claim, but instead is dependent upon claim 1 and has been grouped with claim 1 by the Examiner. Furthermore, independent claims 1 and "19" are not commensurate in scope for the reasons as set forth by the Examiner in the Restriction Requirement, which reasons applicant has not addressed in the response filed July 27, 2005. Lastly, any allegation of lack of burden due to a perceived knowledge by applicant that a thorough search of either of the inventions or any one of the species would necessarily encompass the search area for the other invention or species is not well taken since the IDS filed by applicant failed to uncover 67% of the prior art applied against the claims herein.

The requirement is still deemed proper and is therefore made FINAL.

With respect to the claims that read upon elected Species E, as depicted by Figure 6 of the application, claim 10, contrary to applicant's position, clearly reads on Species D (Figure 5), rather than elected Species E. Therefore, claims 1-9, and 11-18 have been examined herein on the merits, while claims 10, 19, and 20 are withdrawn from further consideration at this time.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 9, 11, 12, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trutna '469 taken together with either Brunner et al or Letzel.

Trutna '469 (Figs. 1 and 2; col. 4, line 49 through col. 5, line 49; col. 10, lines 46-49) substantially discloses applicant's invention as recited by instant claims 1-4, 9, 11, 12, and 16-18, except for the flow deflectors connected to the u-shaped channels.

Brunner et al (Figs. 3, 4, and 7; page 1, lines 25-29, 52-71) or Letzel (Figs. 1-5; paragraphs [0014] – [0016]) each alternatively disclose gas-liquid separators of the type as taught by Trutna '469, wherein the u-shaped channels are provided with deflector elements connected to the channels and arranged between the tiers of channels to enhance the separation of the liquid from the co-currently flowing liquid/gas stream. It would have been obvious for an artisan at the time of the invention, to modify the separation channels as taught by Trutna '469, to include flow deflectors, in view of either Brunner et al or Letzel, since such would clearly increase the amount of liquid removed from the gas-liquid stream in a manner well understood by one having ordinary skill in the art.

4. Claims 5, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trutna '469 taken together with Brunner et al.

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Trutna '469 (Figs. 1 and 2; col. 4, line 49 through col. 5, line 49; col. 10, lines 46-49) substantially discloses applicant's invention as recited by instant claims 5, 6, and 13, except for the flow deflectors being attached to the bottom portion of the channels, particularly to the side of the bottom portion of the channels of the upper tier.

Brunner et al (Figs. 3, 4, and 7; page 1, lines 25-29, 52-71) as discussed above clearly teaches separation channels having flow deflectors (b) attached to the bottom portion of the upper tier of channels and also flow deflectors (a) attached to the side of the bottom portion of the upper tier of channels. It would have been obvious for an artisan at the time of the invention, to provide flow deflectors attached to the bottom portion of the channels, particularly to the side of the bottom portion of the channels as taught by Trutna '469, in view Brunner et al, since such would best enhance the separation of the liquid from the flow stream by causing deflection of the heavier liquid particles at the point of earliest contact of the stream with the upper tier of channels.

Allowable Subject Matter

5. Claims 7, 8, 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csb
8-22-05

Scott Bushey
Primary Examiner
Art Unit 1724



8-22-05